Plant Science, 69 (1990) 259–262
Elsevier Scientific Publishers Ireland Ltd.

SUBJECT INDEX

Volume 69 (1990)

Abscisic acid, amylase, gibberellic acid, isozymes, light-inducibility, *Zea mays*, 167
Active oxygen, ascorbate peroxidase, immunochemistry, leaf, monoclonal antibody, *Spinacia oleracea*, 1
Acyltransferase, solubilization, monoacylglycerol-3-phosphate, positional specificities, 39
Agarose, *Brassica napus*, chlorsulfuron, clonal cultures, embryogenesis, regeneration, resistance, 231
Agrobacterium, *Allium cepa*, tumours, monocotyledons, 249
Agrobacterium rhizogenes, *Agrobacterium* tumefaciens, genetic transformation, somatic hybridization, *Medicago sativa*, *Medicago intertexta*, 189
Agrobacterium Ti-binary vectors, strawberry, *Fragaria* × *anannassa* Duch., transformation, pBIN6, pSS1, 79
Agrobacterium transformation, *Solanum tuberosum*, *Nicotiana plumbaginifolia*, selectable markers, micronuclei, factors, partial genome transfer, 123
Agrobacterium tumefaciens, *Agrobacterium rhizogenes*, genetic transformation, somatic hybridization, *Medicago sativa*, *Medicago intertexta*, 189
Allium cepa, *Agrobacterium*, tumours, monocotyledons, 249
Amino acids, ethylene, polyamines, proliferation, differentiation, 225
Amylase, abscisic acid, gibberellic acid, isozymes, light-inducibility, *Zea mays*, 167
Anther culture, embryogenesis, embryo-specific, barley, zygotic embryo, pollen-derived embryo, 239
Arachis hypogaea L., *Helianthus annuus* L., *Gossypium hirsutum* L., extensin(s), hydroxyproline, proline, 27
Arachis hypogaea L., peroxidase, heme, immunoblot, concentration, 19
Ascorbate peroxidase, active oxygen, immunochemistry, leaf, monoclonal antibody, *Spinacia oleracea*, 1
ATPase, grapevine roots, plasma membrane, proton transport, vanadate, 139
Avena sativa, plant protoplasts, ionophore A23187, calcium ions, membrane lysis, 135

Barley, embryogenesis, anther culture, embryo-specific, zygotic embryo, pollen-derived embryo, 239
Barley, *Rhynchosporium secalis*, phytotoxic glycoprotein, elicitor, polysaccharide and lignin biosynthesis, β-1,3-glucanase, 11
Brassica juncea, cotyledon culture, histology, organogenesis, regeneration, tissue culture, 207
Brassica napus, agarose, chlorsulfuron, clonal cultures, embryogenesis, regeneration, resistance, 231

Calcium ions, *Avena sativa*, plant protoplasts, ionophore A23187, membrane lysis, 135
Calmodulin antagonists, plasma membrane redox, proton excretion, cultured carrot cells, 33
Cell suspension, *Pinus caribaea*, protoplast, somatic embryogenesis, tropical pine, 215
Chloramphenicol acetyltransferase, *Citrus*, protoplasts, direct transformation, neomycin phosphotransferase, paromomycin, transgenic plants, 199
Chlorsulfuron, agarose, *Brassica napus*, clonal cultures, embryogenesis, regeneration, resistance, 231
Citrus, protoplasts, direct transformation, neomycin phosphotransferase, paromomycin, transgenic plants, chloramphenicol acetyltransferase, 199
Clonal cultures, agarose, *Brassica napus*, chlorsulfuron, embryogenesis, regeneration, resistance, 231
Concentration, *Arachis hypogaea* L., peroxidase, heme, immunoblot, 19
Cotyledon culture, *Brassica juncea*, histology, organogenesis, regeneration, tissue culture, 207
Cucumis melo, stachyose, raffinose saccharides, galactosyltransferase, *Cucumis sativus*, α-galactosidase, 179
Cucumis sativus, stachyose, raffinose saccharides, galactosyltransferase, *Cucumis melo*, α-galactosidase, 179
Cultured carrot cells, plasma membrane redox, proton excretion, calmodulin antagonists, 33
CuZn superoxide dismutase, glutathione reductase, membrane leakage, paraquat resistance, stress cross tolerance, *Zea mays* L., 157

2D electrophoresis of proteins, *Helianthus annuus*, floral cDNA library, differential hybridization, 111
Differential hybridization, *Helianthus annuus*, 2D electrophoresis of proteins, floral cDNA library, 111
Differentiation, amino acids, ethylene, polyamines, proliferation, 225
Direct gene transfer, electrofusion, protoplasts, electroporation, β-glucuronidase, 103
Direct transformation, *Citrus*, protoplasts, neomycin phosphotransferase, paromomycin, transgenic plants, chloramphenicol acetyltransferase, 199

Electrofusion, protoplasts, electroporation, direct gene transfer, β-glucuronidase, 103
Electrophoresis, *Hedysarum*, isozymes, populations, genetic diversity, 49
Electroporation, electrofusion, protoplasts, direct gene transfer, β-glucuronidase, 103
Elicitor, *Rhynchosporium secalis*, barley, phytotoxic glycoprotein, polysaccharide and lignin biosynthesis, β-1,3-glucanase, 11
Embryo-specific, embryogenesis, anther culture, barley, zygotic embryo, pollen-derived embryo, 239
Embryogenesis, agarose, *Brassica napus*, chlorsulfuron, clonal cultures, regeneration, resistance, 231
Embryogenesis, anther culture, embryo-specific, barley, zygotic embryo, pollen-derived embryo, 239
Ethylene, amino acids, polyamines, proliferation, differentiation, 225
Extensin(s), *Helianthus annuus* L., arachis hypogaea L., *Gossypium hirsutum* L., hydroxyproline, proline, 27

Factors, *Solanum tuberosum*, *Nicotiana plumbaginifolia*, *Agrobacterium* transformation, selectable markers, micronuclei, partial genome transfer, 123
Floral cDNA library, *Helianthus annuus*, 2D electrophoresis of proteins, differential hybridization, 111
Fragaria × *anannassa* Duch., strawberry, transformation, agrobacterium Ti-binary vectors, pBIN6, pSS1, 79

G-protein, inositol-phosphates, polyphosphoinositidase, polyphosphoinositide, soybean (cell-suspension), 147
α-Galactosidase, stachyose, raffinose saccharides, galactosyltransferase, *Cucumis sativus*, *Cucumis melo*, 179
Galactosyltransferase, stachyose, raffinose saccharides, *Cucumis sativus*, *Cucumis melo*, α-galactosidase, 179
Genetic diversity, *Hedysarum*, isozymes, electrophoresis, populations, 49
Genetic transformation, *Agrobacterium* rhizogenes, *Agrobacterium tumefaciens*, somatic hybridization, *Medicago sativa*, *Medicago intertexta*, 189
Gibberellic acid, abscisic acid, amylase, isozymes, light-inducibility, *Zea mays*, 167
β-1,3-Glucanase, *Rhynchosporium secalis*, barley, phytotoxic glycoprotein, elicitor, polysaccharide and lignin biosynthesis, 11
β-Glucuronidase, electrofusion, protoplasts, electroporation, direct gene transfer, 103
Glutathione reductase, CuZn superoxide dismutase, membrane leakage, paraquat resistance, stress cross tolerance, *Zea mays* L., 157
Gossypium hirsutum L., *Helianthus annuus* L., *Arachis hypogaea* L., extensin(s), hydroxyproline, proline, 27
Grapevine roots, plasma membrane, ATPase, proton transport, vanadate, 139

Hedysarum, isozymes, electrophoresis, populations, genetic diversity, 49
Helianthus annuus, 2D electrophoresis of proteins, floral cDNA library, differential hybridization, 111
Helianthus annuus L., *Arachis hypogaea* L., *Gossypium hirsutum* L., extensin(s), hydroxyproline, proline, 27
Heme, *Arachis hypogaea* L., peroxidase, immunoblot, concentration, 19
Histology, *Brassica juncea*, cotyledon culture, organogenesis, regeneration, tissue culture, 207
Hydroxyproline, *Helianthus annuus* L., *Arachis hypogaea* L., *Gossypium hirsutum* L., extensin(s), proline, 27

Immunoblot, *Arachis hypogaea* L., peroxidase, heme, concentration, 19
Immunochemistry, active oxygen, ascorbate peroxidase, leaf, monoclonal antibody, *Spinacia oleracea*, 1
Inositol-phosphates, G-protein, polyphosphoinositidase, polyphosphoinositide, soybean (cell-suspension), 147
In organello transcription, *Sorghum* C4 plant, PEP carboxylase, RNA rhythm, 6
Ionophore A23187, *Avena sativa*, plant protoplasts, calcium ions, membrane lysis, 135
Isozymes, abscisic acid, amylase, gibberellic acid, light-inducibility, *Zea mays*, 167
Isozymes, *Hedysarum*, electrophoresis, populations, genetic diversity, 49

Leaf, active oxygen, ascorbate peroxidase, immunochemistry, monoclonal antibody, *Spinacia oleracea*, 1
Light-inducibility, abscisic acid, amylase, gibberellic acid, isozymes, *Zea mays*, 167

Medicago intertexta, *Agrobacterium rhizogenes*, *Agrobacterium tumefaciens*, genetic transformation, somatic hybridization, *Medicago sativa*, 189
Medicago sativa, *Agrobacterium rhizogenes*, *Agrobacterium tumefaciens*, genetic transformation, somatic hybridization, *Medicago intertexta*, 189
Membrane leakage, CuZn superoxide dismutase, glutathione reductase, paraquat resistance, stress cross tolerance, *Zea mays* L., 157
Membrane lysis, *Avena sativa*, plant protoplasts, ionophore A23187, calcium ions, 135
Micronuclei, *Solanum tuberosum*, *Nicotiana plumbaginifolia*, *Agrobacterium* transformation, selectable markers, factors, partial genome transfer, 123
Monoacylglycerol-3-phosphate, acyltransferase, solubilization, positional specificities, 39
Monoclonal antibody, active oxygen, ascorbate peroxidase, immunochemistry, leaf, *Spinacia oleracea*, 1
Monocotyledons, *Agrobacterium*, *Allium cepa*, tumours, 249

Neomycin phosphotransferase, *Citrus*, protoplasts, direct transformation, paromomycin, transgenic plants, chloramphenicol acetyltransferase, 199

Nicotiana plumbaginifolia, *Solanum tuberosum*, *Agrobacterium* transformation, selectable markers, micronuclei, factors, partial genome transfer, 123

Organogenesis, *Brassica juncea*, cotyledon culture, histology, regeneration, tissue culture, 207

Paraquat resistance, CuZn superoxide dismutase, glutathione reductase, membrane leakage, stress cross tolerance, *Zea mays* L., 157
Paromomycin, *Citrus*, protoplasts, direct transformation, neomycin phosphotransferase, transgenic plants, chloramphenicol acetyltransferase, 199
Partial genome transfer, *Solanum tuberosum*, *Nicotiana plumbaginifolia*, *Agrobacterium* transformation, selectable markers, micronuclei, factors, 123
pBIN6, strawberry, *Fragaria* × *anannassa* Duch., transformation, agrobacterium Ti-binary vectors, pSS1, 79
PEP carboxylase, *Sorghum* C4 plant, in organello transcription, RNA rhythm, 65
Peroxidase, *Arachis hypogaea* L., heme, immunoblot, concentration, 19
Phytotoxic glycoprotein, *Rhynchosporium secalis*, barley, elicitor, polysaccharide and lignin biosynthesis, β-1,3-glucanase, 11
Pinus caribaea, cell suspension, protoplast, somatic embryogenesis, tropical pine, 215
Plant protoplasts, *Avena sativa*, ionophore A23187, calcium ions, membrane lysis, 135
Plasma membrane, grapevine roots, ATPase, proton transport, vanadate, 139
Plasma membrane redox, proton excretion, calmodulin antagonists, cultured carrot cells, 33
Pollen-derived embryo, embryogenesis, anther culture, embryo-specific, barley, zygotic embryo, 239
Polyamines, amino acids, ethylene, proliferation, differentiation, 225
Polyphosphoinositidase, G-protein, inositol-phosphates, polyphosphoinositide, soybean (cell-suspension), 147
Polyphosphoinositide, G-protein, inositol-phosphates, polyphosphoinositidase, soybean (cell-suspension), 147
Polysaccharide and lignin biosynthesis, *Rhynchosporium secalis*, barley, phytotoxic glycoprotein, elicitor, β-1,3-glucanase, 11
Populations, *Hedysarum*, isozymes, electrophoresis, genetic diversity, 49
Positional specificities, acyltransferase, solubilization, monoacylglycerol-3-phosphate, 39
Potato, *Solanum brevidens*, somatic hybrids, virus resistance, 95
Proliferation, amino acids, ethylene, polyamines, differentiation, 225
Proline, *Helianthus annuus* L., *Arachis hypogaea* L., *Gossypium hirsutum* L., extensin(s), hydroxyproline, 27
Proton excretion, plasma membrane redox, calmodulin antagonists, cultured carrot cells, 33
Proton transport, grapevine roots, plasma membrane, ATPase, vanadate, 139
Protoplast, cell suspension, *Pinus caribaea*, somatic embryogenesis, tropical pine, 215
Protoplasts, *Citrus*, direct transformation, neomycin phosphotransferase, paromomycin, transgenic plants, chloramphenicol acetyltransferase, 199
Protoplasts, electrofusion, electroporation, direct gene transfer, β-glucuronidase, 103
pSS1, strawberry, *Fragaria* × *anannassa* Duch., transformation, agrobacterium Ti-binary vectors, pBIN6, 79

Raffinose saccharides, stachyose, galactosyltransferase, *Cucumis sativus*, *Cucumis melo*, α-galactosidase, 179
Regeneration, agarose, *Brassica napus*, chlorsulfuron, clonal cultures, embryogenesis, resistance, 231
Regeneration, *Brassica juncea*, cotyledon culture, histology, organogenesis, tissue culture, 207
Resistance, agarose, *Brassica napus*, chlorsulfuron, clonal cultures, embryogenesis, regeneration, 231
Rhynchosporium secalis, barley, phytotoxic glycoprotein, elicitor, polysaccharide and lignin biosynthesis, β-1,3-glucanase, 11
RNA rhythm, *Sorghum* C4 plant, PEP carboxylase, in organello transcription, 65

Selectable markers, *Solanum tuberosum*, *Nicotiana plumbaginifolia*, *Agrobacterium* transformation, micronuclei, factors, partial genome transfer, 123
Solanum brevidens, potato, somatic hybrids, virus resistance, 95
Solanum tuberosum, *Nicotiana plumbaginifolia*, *Agrobacterium* transformation, selectable markers, micronuclei, factors, partial genome transfer, 123
Solubilization, acyltransferase, monoacylglycerol-3-phosphate, positional specificities, 39
Somatic embryogenesis, cell suspension, *Pinus caribaea*, protoplast, tropical pine, 215
Somatic hybridization, *Agrobacterium rhizogenes*, *Agrobacterium tumefaciens*, genetic transformation, *Medicago sativa*, *Medicago intertexta*, 189
Somatic hybrids, potato, *Solanum brevidens*, virus resistance, 95
Sorghum C4 plant, PEP carboxylase, in organello transcription, RNA rhythm, 65
Soybean (cell-suspension), G-protein, inositol-phosphates, polyphosphoinositidase, polyphosphoinositide, 147
Spinacia oleracea, active oxygen, ascorbate peroxidase, immunochemistry, leaf, monoclonal antibody, 1
Stachyose, raffinose saccharides, galactosyltransferase, *Cucumis sativus*, *Cucumis melo*, α-galactosidase, 179
Strawberry, *Fragaria* × *anannassa* Duch., transformation, agrobacterium Ti-binary vectors, pBIN6, pSS1, 79
Stress cross tolerance, CuZn superoxide dismutase, glutathione reductase, membrane leakage, paraquat resistance, *Zea mays* L., 157

Tissue culture, *Brassica juncea*, cotyledon culture, histology, organogenesis, regeneration, 207
Transformation, strawberry, *Fragaria* × *anannassa* Duch., agrobacterium Ti-binary vectors, pBIN6, pSS1, 79
Transgenic plants, *Citrus*, protoplasts, direct transformation, neomycin phosphotransferase, paromomycin, chloramphenicol acetyltransferase, 199
Tropical pine, cell suspension, *Pinus caribaea*, protoplast, somatic embryogenesis, 215
Tumours, *Agrobacterium*, *Allium cepa*, monocotyledons, 249
Vanadate, grapevine roots, plasma membrane, ATPase, proton transport, 139
Virus resistance, potato, *Solanum brevidens*, somatic hybrids, 95

Zea mays, abscisic acid, amylase, gibberellic acid, isozymes, light-inducibility, 167
Zea mays L., CuZn superoxide dismutase, glutathione reductase, membrane leakage, paraquat resistance, stress cross tolerance, 157
Zygotic embryo, embryogenesis, anther culture, embryo-specific, barley, pollen-derived embryo, 239

Plant Science, 69 (1990) 263 – 264
Elsevier Scientific Publishers Ireland Ltd.

AUTHOR INDEX

Volume 69 (1990)

Auriol, P. 11
Aviv, D. 199

Baatout, H. 49
Barbara, D.J. 79
Barr, R. 33
Basu, A. 225
Beopouolos, N. 19
Bhojwani, S.S. 207
Biffen, M. 147
Bleichman, S. 199
Böttger, M. 33
Bowles, D.J. 239
Breda, C. 19

Conner, A.J. 249
Crane, F.L. 33
Cretin, C. 65

David, A. 215
Dijkhuis, P. 123
Dommisse, E.M. 249
Donath, E. 135

Esnault, R. 19
Evrard, J.-L. 111

Frentzen, M. 39

Gadal, P. 65
Gibson, R.W. 95
Gilissen, L.J.W. 123
Golan-Goldhirsh, A. 27
Gressel, J. 157
Greyling, M.M. 157
Guha-Mukherjee, S. 225

Hankamer, B. 27
Hanke, D.E. 147
Herdenberger, F. 111
Higgins, P. 239
Huber, J.L.A. 179
Huber, S.C. 179

James, D.J. 79
Johnson, L.B. 189
Jones, M.G.K. 95

Karp, A. 95
Kell, A. 135
Keryer, E. 65
King, J. 231
Klein, A. 111
Kondo, N. 1
Kuntz, M. 111

Lafitte, C. 11
Laine, E. 215
Leung, D.W.M. 249
Lips, S.H. 27

Ma Casacuberta, J. 167
Maggioni, A. 139
Malan, C. 157
Marquet, P.Y. 11
Marrakchi, M. 49
Mazars, C. 11
Mosinger, E. 65

Passey, A.J. 79
Pehu, E. 95
Pernes, J. 49
Pharr, D.M. 179
Pillay, D.T.N. 111
Pinton, R. 139
Puigdomenech, P. 167

Ramulu, K.S. 123
Rossignol, M. 11

Saji, H. 1
San Segundo, B. 167
Saxena, P.K. 231
Sesto, P. 19
Sethi, U. 225
Sharma, K.K. 207
Shaw, M.L. 249
Steinmetz, A. 111

Tanaka, K. 1
Tempelaar, M.J. 103
Tessier, L.-H. 111
Thomas, M. 65
Thomas, M.R. 189

Van der Steege, G. 103
van Huystee, R. 19
Varanini, Z. 139
Vardi, A. 199
Verhoeven, H.A. 123
Vidal, J. 65

White, F.F. 189
Williams, D. 231